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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/460,197 12/13/1999 JOHN SPENCER CUNNINGHAM A65-25311 2142

128 7590 05/08/2002

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EXAMINER

NGUYEN, KEVIN M

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/460,197

Applicant(s)

CUNNINGHAM ET AL.

Examiner

Kevin M. Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-52 is/are pending in the application.
- 4a) Of the above claim(s) 1-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This Office Action is made in response to applicant's RESPONSE TO ELECTION REQUIREMENT, filed on 2/25/2002 (entered into the file wrapper as Paper No. 5).
2. Applicant's election without traverse of Group III corresponding to claims 33-52 in Paper No. 5 is acknowledged.

Claims 1-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected Group I and Group II. Election was made **without** traverse in Paper No. 5.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

3. The information disclosure statement filed 12/13/1999 which has been placed in the application file, the information referred to therein has been considered as to the merits.

Claim Objections

4. Claims 34, 35, 39, 42, 44, 45, 49 and 52 are objected to because of the following informalities: Open GL and VAPS are undefined. Appropriate correction is required.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the dynamic switches, occlusion memory, VAPS formats, linking generated code, "what are MPD and MPCD

stand for ?" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 33-35, 37-39, 42-45, 47-49 and 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomiyasu (US 5,138,305).

8. As to claims 33 and 38, Tomiyasu teaches a computer device having a keyboard 15, a CPU 11, a memory 10, and a CRT 16 for driving many display devices such as a cathode ray tube (CRT) 16, a liquid crystal display (LCD) 17, an electroluminescent display (ELD) 18, and a plasma display panel (PDP) 19. When the signals are all "0", the CRT is selected as show in Fig. 4. When the signals are all "1", the LCD is selected, and when signals FLT and AFT are "1" and signal DSC is "0", the ELD is selected (linking generated code from a formats to a standard library, col. 5, lines 16-19). Display controller 12 comprises a change control circuit 21 which is supplied with change signals (driving a plurality of displays of different types from output of a graphics library, col. 4, line24-25). Keyboard controller 14 controls the switching operation of display

units in response to the signals FLT, AFL, and DSC (dynamically switching between a display in real time, col. 4, lines 26-28).

9. As to claims 34 and 39, Tomiyasu teaches font memory, V-RAM 10, as claimed as inherently a graphics library having OpenGL.

10. As to claim 35, Tomiyasu teaches font memory, V-RAM 10, as claimed as inherently VAPS formats.

11. As to claim 37, Tomiyasu teaches display controller 12 as claimed as driving hybrid raster displays.

12. As to claims 43 and 48, Tomiyasu teaches a method for a computer device having a keyboard 15, a CPU 11, a memory 10, and a CRT 16 for driving many display devices such as a cathode ray tube (CRT) 16, a liquid crystal display (LCD) 17, an electroluminescent display (ELD) 18, and a plasma display panel (PDP) 19. When the signals are all "0", the CRT is selected as show in Fig. 4. When the signals are all "1", the LCD is selected, and when signals FLT and AFT are "1" and signal DSC is "0", the ELD is selected (linking generated code from a formats to a standard library, col. 5, lines 16-19). Display controller 12 comprises a change control circuit 21 which is supplied with change signals (driving a plurality of displays of different types from output of a graphics library, col. 4, line24-25). Keyboard controller 14 controls the switching operation of display units in response to the signals FLT, AFL, and DSC (dynamically switching between a display in real time, col. 4, lines 26-28).

13. As to claim 44, Tomiyasu teaches a method of linking font memory, V-RAM 10, as claimed as linking to an OpenGL.

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14. As to claims 45 and 52, Tomiyasu teaches a method of linking when the signals are all "0", the CRT is selected as show in Fig. 4. When the signals are all "1", the LCD is selected, and when signals FLT and AFT are "1" and signal DSC is "0", the ELD is selected (col. 5, lines 16-19).

15. As to claim 47, Tomiyasu teaches a method for display controller 12 as claimed as driving hybrid raster displays.

16. As to claim 49, Tomiyasu teaches a method for font memory, V-RAM 10, as claimed as inherently linking to an OpenGL graphics library.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 36, 40, 41, 46, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomiyasu in view of Tokuhashi et al (US 6,137,457).

19. As to claim 36, Tomiyasu teaches all of the claimed limitation of claims 33, 38, except for driving means comprise stroke video drivers. However, Tokuhashi et al teaches many controllers 2-1, 2-2, 2-3 for head up display (HUD) devices 1 (stroke video drivers as claimed, figure 4, col. 6, lines 12-22). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the additional controllers for HUDs (1) taught by Tokuhashi et al for multiple displays of Tomiyasu's

system because this would couple to one computer 20 which can be collectively and forcibly controlled by the computer 20 (col. 6, lines 14-19 of Tokuhashi et al).

20. As to claims 41 and 51, Tomiyasu teaches a keyboard controller 14 which controls the switching operation of display units in response to the signals FLT, AFL, and DSC. Tokuhashi et al teaches the mode switching control circuit 27 that was controlled by a computer 20 (figure 6) or a remote control 30 (figure 8). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate a keyboard controller 14 taught by Tomiyasu for the computer 20 of Tokuhashi et al's system because this would couple to one computer 20 which can be collectively and forcibly controlled by the computer 20 (col. 6, lines 14-19 of Tokuhashi et al).

21. As to claims 46 and 50, Tomiyasu teaches parameter memory 22 (col. 4, lines 29-52). Tokuhashi et al teaches the controllers 2-1, 2-2, 2-3 for head up display (HUD) devices 1 (stroke video drivers as claimed, figure 4, col. 6, lines 12-22). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the additional memory 22 taught by Tomiyasu for multiple displays of Tokuhashi's system because this would couple to one computer 20 which can be collectively and forcibly controlled by the computer 20 (col. 6, lines 14-19 of Tokuhashi et al).

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-**

6209. The examiner can normally be reached on MON-FRI from 9:00-5:00 with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Examiner
Art Unit 2674


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600